



National Committee on Uniform Traffic Control Devices

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Agenda item IV.D June 2012 RWSTC
RWSTC Agenda item III.4
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National Committee on Uniform Traffic Control Devices RWSTC RECOMMENDATION FOLLOWING SPONSOR COMMENTS

TECHNICAL COMMITTEE: NCUTCD Regulatory/Warning Signs Technical Committee

DATE OF ACTION: (Task Force) May 6, 2012, revised May 8, 2012, updated 6-11-12, updated 12-13-12 no changes, 1-9-13

TASK FORCE: Tom Heydel (chair), Lee Roadifer, Richard Meredith

RWSTC APPROVAL DATE: 1-9-13

TRANSMITTAL TO SPONSORS DATE: Fall 2012

COUNCIL APPROVAL DATE: 1-11-13

TOPIC: Reversible Lane Control Signs (Figure 2B-7)

AFFECTED PORTIONS OF MUTCD: Section 2B.26 and Figure 2B-7

DISCUSSION/QUESTION:

Figure 2B-7 depicts sign R3-9e with the red X as 7 AM - 9 AM with the ahead/left combination arrow as 4 PM – 6PM when traveling northbound if north is facing up. However, in the southbound direction the sign is depicted with the same time restrictions when in actual fact for the red X it would have to be the opposite which would be 4 PM – 6 PM for the red X and 7 AM – 9 AM for the ahead/left combination arrow. Therefore, sign R3-9e needs to be modified for the southbound direction traveling from top of page to bottom of page.

Section 2B.26 paragraph 01 references a static sign or changeable message sign. Section 4M.01 paragraph 03 says that an engineering study should be done to determine if static signs are sufficient or whether the reversible lane needs to be controlled with lane use control signals and provides a list of 5 conditions. The sign supplements the lane use control signals when lane use control signals are used. This paragraph also references Section 2B.26 specifically.

Table 2B-2 shows a single left turn arrow option also. Therefore, figure 2B-7 would not need to show that particular option.

44 **RECOMMENDATION:**

45

46 Change the R3-9e shown in Figure 2B-7 on the left part of detail to read
47 RED X (4-6 PM) and Ahead/left combination arrow to read 7 AM – 9 AM to avoid
48 conflict with the R3-9e sign shown on the right portion of page (traveling up).

49

50 **RECOMMENDED MUTCD PROVISIONS/ REVISIONS**

51

52 **RECOMMENDED WORDING:**

53 **Note:** Proposed changes to the MUTCD are shown in underline red and removed
54 text are shown in ~~strikethrough red~~.

55 **Section 2B.26 Reversible Lane Control Signs (R3-9e through R3-9i)**

56 Option:

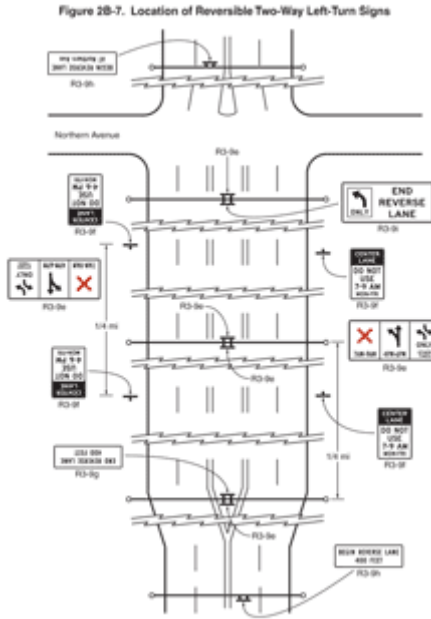
57 01 A reversible lane may be used for through traffic (with left turns either permitted or
58 prohibited) in alternating directions during different periods of the day, and the lane may
59 be used for exclusive left turns in one or both directions during other periods of the day
60 as well. Reversible Lane Control (R3-9e through R3-9i) signs (see Figure 2B-6) may be
61 either static type or changeable message type. (See Chapter 4M for lane use control
62 signals for reversible lanes). These signs may be either post-mounted or overhead.

63 **Standard:**

64 02 **post-mounted Reversible Lane Control signs shall be used only as a**
65 **supplement to overhead signs or signals. post-mounted signs shall be identical**
66 **in design to the overhead signs and an additional legend such as CENTER LANE**
67 **shall be added to the sign (R3-9f) to indicate which lane is controlled. For both**
68 **word messages and symbols, this legend shall be at the top of the sign.**

69 03 **Where it is determined by an engineering study that lane-use control signals**
70 **or physical barriers are not necessary, the lane shall be controlled by overhead**
71 **Reversible Lane Control signs (see Figure 2B-7).**

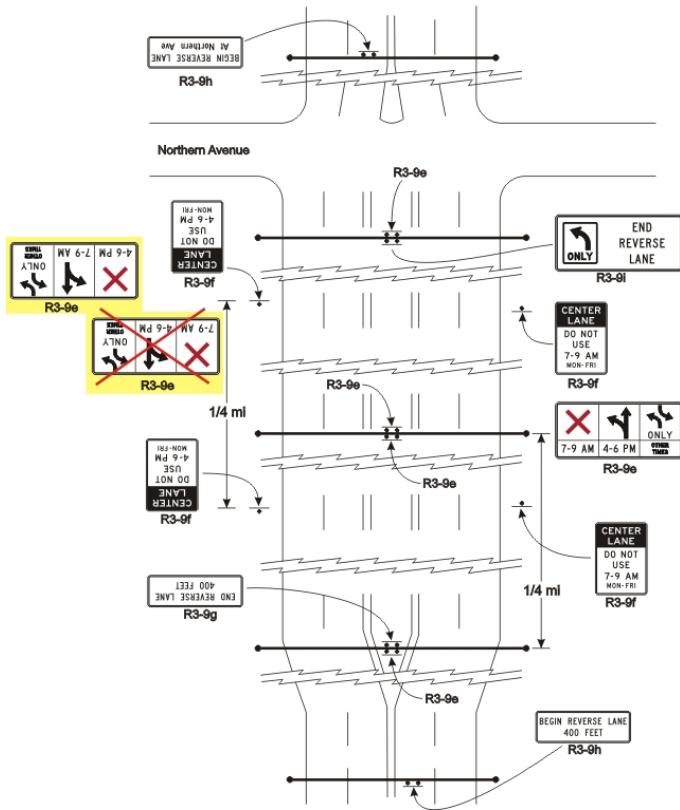
72 **Figure 2B-7 Location of Reversible Two-Way Left-Turn Signs**



73

74 **Revise figure 2B-7 as shown below.**

Figure 2B-7. Location of Reversible Two-Way Left-Turn Signs



75

76 Option:
77 04 Reversing traffic flow may be controlled with pavement markings and Reversible Lane

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78 Control signs (without the use of lane control signals), when all of the following conditions
79 are met:

- 80 A. Only one lane is being reversed,
- 81 B. An engineering study indicates that the use of Reversible Lane Control signs alone
82 would result in an acceptable level of safety and efficiency, and
- 83 C. There are no unusual or complex operations in the reversible lane pattern.

84 **Standard:**

85 05 **Reversible Lane Control signs shall contain the legend or symbols designating**
86 **the allowable uses of the lane and the time periods such uses are allowed.**
87 **Where symbols and legends are used, their meanings shall be as shown in Table**
88 **2B-2.**

Table 2B-2. Meanings of Symbols and Legends on Reversible Lane Control Signs	
Symbol / Word Message	Meaning
Red X on white background	Lane closed
Upward pointing black arrow on white background (if left turns are permitted, the arrow shall be modified to show left / through arrow)	Lane open for through travel and any turns not otherwise prohibited
Black two-way left-turn arrows on white background and legend ONLY	Lane may be used only for left turns in either direction (i.e., as a two-way left-turn lane)
Black single left-turn arrow on white background and legend ONLY	Lane may be used only for left turns in one direction (without opposing left turns in the same lane)

89 06 **Reversible Lane Control signs shall consist of a white background with a black**
90 **legend and border, except for the R3-9d sign, where the color red is used.**

91 07 **Symbol signs, such as the R3-9d sign, shall consist of the appropriate symbol**
92 **in the upper portion of the sign with the appropriate times of the day and days**
93 **of the week below it. All times of the day and days of the week shall be**
94 **accounted for on the sign to eliminate confusion to the road user.**

95 08 **In situations where more than one message is conveyed to the road user,**
96 **such as on the R3-9d sign, the sign legend shall be arranged as follows:**

- 97 A. The prohibition or restriction message is the primary legend and shall be
98 on the top for word message signs and to the far left for symbol signs,
- 99 B. The permissive use message shall be displayed as the second legend, and
- 100 C. The OTHER TIMES message shall be displayed at the bottom for word
101 message signs and to the far right for symbol signs.

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102 Option:
103 09 The symbol signs may also include a downward pointing arrow with the legend THIS
104 LANE. The term OTHER TIMES may be used for either the symbol or word message sign.

105 **Standard:**
106 10 **A Reversible Lane Control sign shall be mounted over the center of the lane**
107 **that is being reversed and shall be perpendicular to the roadway alignment.**

108 11 **If the vertical or horizontal alignment is curved to the degree that a driver**
109 **would be unable to see at least one sign, and preferably two signs, then**
110 **additional overhead signs shall be installed. The placement of the signs shall be**
111 **such that the driver will have a definite indication of the lanes specifically**
112 **reserved for use at any given time. Special consideration shall be given to major**
113 **generators introducing traffic between the normal sign placement.**

114 12 **Transitions at the entry to and exit from a section of roadway with reversible**
115 **lanes shall be carefully reviewed, and advance signs shall be installed to notify**
116 **or warn drivers of the boundaries of the reversible lane controls. The R3-9g or**
117 **R3-9h signs shall be used for this purpose.**

118 Option:
119 13 More than one sign may be used at the termination of the reversible lane to emphasize
120 the importance of the message (R3-9i).

121 **Standard:**
122 14 **Flashing beacons, if used to accentuate the overhead Reversible Lane Control**
123 **signs, shall comply with the applicable requirements for flashing beacons in**
124 **Chapter 4L.**

125 15 **When used in conjunction with Reversible Lane Control signs, the Turn**
126 **Prohibition signs (R3-1 to R3-4, R3-18) shall be mounted overhead and**
127 **separate from the Reversible Lane Control signs. The Turn Prohibition signs**
128 **shall be designed and installed in accordance with Section 2B.18.**

129 *Guidance:*
130 16 *For additional emphasis, a supplemental plaque stating the distance of the prohibition,*
131 *such as NEXT 1 MILE, should be added to the Turn Prohibition signs that are used in*
132 *conjunction with Reversible Lane Control signs.*

133 17 *If used, overhead signs should be located at intervals not greater than 1/4 mile. The*
134 *bottom of the overhead Reversible Lane Control signs should not be more than 19 feet*
135 *above the pavement grade.*

136 18 *Where more than one sign is used at the termination of a reversible lane, they should*
137 *be at least 250 feet apart. Longer distances between signs are appropriate for streets*
138 *with speeds over 35 mph, but the separation should not exceed 1,000 feet.*

139 19 *Because left-turning vehicles have a significant impact on the safety and efficiency of a*
140 *reversible lane operation, if an exclusive left-turn lane or two-way left-turn lane cannot*
141 *be incorporated into the lane-use pattern for a particular peak or off-peak period,*
142 *consideration should be given to prohibiting left turns and U-turns during that time*
143 *period.*

144 VOTE: RWSTC 6-20-12

145 For: Unanimous

146 Opposed:

147 Abstentions:

148 VOTE: RWSTC 1-9-13

149 For: Unanimous

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151 COUNCIL Vote: 1-11-13 For: Unanimous

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155 c: NCUTCD/January 2013/Heydel/RW # 4 reversible lane control signs figure

156 2B-7 5-6-12, revised 5-8-12, updated 6-11-12, revised and approved RWSTC 6-20-12

157 READY FOR SPONSORS, revised following sponsor comments 12-13-12, approved by

158 RWSTC 1-9-13, approved by Council 1-11-13